

AMENDMENT

Amendment to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (currently amended). A r[R]ecording system [84] for recording vehicles [72] with a position determining system [74], [for example] such as a satellite navigation system or bearing taking system, when using roads, [with the features] said system comprising:

- (a) means [76] for permitting a vehicle to transmit [its] a received coordinate signal thereof [78] to the recording system [84],
- (b) the recording system [84] comprising a computer unit;
- (c) a digital road map [86] being stored in a memory of the computer unit;
- (d) selected roads [10] of the road map being subdivided into appropriate sections [26,28,30,32,34];
- (e) each said section [26,28,30,32,34], in turn, being subdivided into digital rectangular segments [36,38,40,42,44],
- (f) means for associating the coordinates of the respective detected vehicle [72] with the rectangular segments [36,38,40,42,44],
- (g) each said section [26,28,30,32,34] of the rectangular sections having an appropriately selected length [46] of the digital rectangular segments [36,38,40,42,44;] , and

(h) the digital rectangular segments [36,38,40,42,44] overlying the course of the road[,];

[characterized in that]

[i] whereby for each said section [26,28,30,32,34,] of the selected roads of the road map a respective appropriately selected width [48] of the rectangular digital segments [36,38,40,44] is provided.

Claim 2 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in claim 1, [characterized in that] wherein the sections [26,28,30,32,34] have different lengths [46].

Claim 3 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [or 2, characterized in that], wherein the selected roads are toll roads, such as highways [10].

Claim 4 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in claim 3, [characterized in that] wherein the sections [26,28,30,32,34] extend from one exit [16,18] to another exit [16,18].

Claim 5 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [to 4], [characterized in that] wherein means are provided for activating the recording of the vehicle [(72)] not before the coordinate signal [(78)] enters [a] the digital rectangular segment [(36,38,40,42,44)].

Claim 6 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [to 5], [characterized in that] wherein means are provided for de-activating the r[R]ecording of the vehicle [(72)] upon the coordinate signal [(78)] leaving [a] the rectangular segment [(36,38,40,42,44)].

Claim 7 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [to 6], [characterized by] wherein identifying means for transmitting an identifying signal [(80)] to the recording system [(84)] is provided for unambiguous identification of [a] the detected vehicle [(72)].

Claim 8 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [to 7, characterized in that], wherein means are provided for associating toll [(90)] with the detected vehicle [(72)].

Claim 9 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [to 8, characterized in that], wherein means are provided for determining the entrance and/or exit angle at which [a] the detected vehicle [(72)] enters or leaves [a] the digital rectangular segment [(36,38.40,44)].

Claim 10 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [to 9, characterized by], wherein means are provided for optimizing or reducing, respectively, the data quantities, in particular of the road data, of the section data

[(26,28,30,32,34)] and of the data of the digital rectangular segments [(36,38,40,42,44)].

Claim 11 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [to 10, [characterized in that], wherein the digital road map [(86)] is provided in the form of vector data.

Claim 12 (currently amended). A r[R]ecording system [84] for recording vehicles [(72) with a position determining system (74), for example a satellite navigation system or bearing taking system, when using roads], as claimed in [anyone of the] claim[s] 1 [to 11 characterized in that], wherein means are provided for fixing a tolerance range within which activation and de-activation of the recording of the vehicle [(72)] takes place.

Claim 13 (currently amended). A m[M]ethod of recording vehicles with a position determining system [(74)], such as satellite navigation system (GPS), when using roads [(10)], [with] said method comprising the following steps:

- (a) transmitting [the] a received coordinate signal [(78)] to a recording system [(84)] with a computer unit [the] having a memory [of which has] with stored therein a digital road map [(86)],
- (b) subdividing selected roads [(10)] of the digital road map [(86)] into appropriate sections [(26,28,30,32,34)],
- (e) subdividing each section [(26,28,30,32,34)], in turn, into digital rectangular segments [(36,38,40,42,44)],
- (f) associating the coordinates [(78)] of the respective detected vehicle [(72)] with the digital rectangular segments [(36,38,40,42,44)],

- (g) assigning to each said section [(26,28,30,34)] an appropriate length [(46)] for the digital rectangular segments [(36,38,40,42,44);] and
- (h) superimposing the rectangular digital segments [(36,38,40,42,44)] to the course of the road [(10)],

[characterized in that]

- [(i)] whereby an appropriately selected width (48) for the digital rectangular segments [(36,38,40,44)] is assigned to each said section [(26,28,30,32,34)].

Claim 14 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in claim 13, **[characterized in that]** wherein an appropriately selected length is assigned to the sections [(26,28,30,32,34)], [these] said lengths being possibly different.

Claim 15 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in [anyone of the] claim[s] 13 [or 14, **characterized in that**], wherein toll roads [(10)] are selected as relevant roads.

Claim 16 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in claim 15, **[characterized in that]**, wherein subdivision of the roads in to the sections [(26,28,30,32,24)] is effected, in the case of highways or highway-like roads, from one exit [(16,18)] to another exit [(16,18)].

Claim 17 (currently amended). A m[M]ethod of recording [(72)] with a position determining system [(74), when using roads (10)], as claimed in [anyone of the] claim[s] 13 [to 16, **characterized in that**], wherein recording of the vehicle [(72)] is not activated before the coordinate signal [(78)] enters [a] the digital rectangular segment [(36,38,40,42,44)].

Claim 18 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in [anyone of the] claim[s] 13 [to 17, **characterized in that**], wherein recording of the vehicle [(72)] is deactivated upon the coordinate signal [(78)] leaving [a] the digital rectangular segment [(36,38,40,42,44)].

Claim 19 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in [anyone of the] claim[s] 13 [to 18, **characterized in that**], wherein an identification signal [(80)] for unambiguously identifying [a] the recorded vehicle [(72)] is transmitted to the recording system.

Claim 20 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in [anyone of the] claim[s] 13 [to 19, **characterized in that**], wherein a toll is associated with [a] the detected vehicle [(72)].

Claim 21 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in [anyone of the] claim[s] 13 [to 20, **characterized in that**], wherein [the] an entrance angle and/or [the] an exit angle at which a vehicle enters or leaves, respectively, the [a] digital rectangular segment [(36,38,40,42,44),] is determined.

Claim 22 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in [anyone of the] claim[s] 13 [to 21, **characterized in that**], wherein a data optimization or data reduction, respectively, in particular of the road data, the section data and the data of the rectangular segments [(36,38,40,42,44)] takes place.

Claim 23 (currently amended). A m[M]ethod of recording vehicles [(72)] with a position determining system [(74), when using roads (10)], as claimed in [anyone of the] claim[s] 13 [to 22, **characterized in that**], wherein the digital road map [(86)] is stored in the memory of the computer unit as vector data.